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#### REMARKS

### 1. Introduction

Herein Applicant has amended independent claim 383 and dependent claims 388-390, as well as portions of the specification. In particular, claim 383 now reflects that the artificial antigen presenting cells displays peptides derived from an antigen of interest in the context of an MHC molecule. Conforming amendments have been made to claims 388 and 390, such that the Markush group of claim 388 now recites only peptides derived from certain preferred sources, whereas in claim 390, the term "MHC component" has been changed to "MHC molecule", the phrase "the peptide derived from" has been added before "the antigen", and the term "a cholesterol molecule" has been changed to "cholesterol". Claim 389 has been amended to correct the typographical error noted by the Examiner.

Per the Examiner's suggestion, Applicant has also amended the application's title and abstract to more closely reflect the subject matter currently under consideration. Applicant has also amended a paragraph on page 46 of the specification as filed in order to incorporate terms found in original claim 166.

Applicant notes for the record that the claim amendments herein are introduced for the sole purpose of claiming the invention with greater particularity, thus facilitating prosecution, and are not related to reasons of patentability. Moreover, the amendments to the claims and specification add no new matter and are fully supported by the specification and claims as originally filed. Notwithstanding the foregoing, Applicant reserves the right to pursue subject matter not yet or no longer claimed in this or a related application.

Applicant respectfully requests reconsideration of the invention as now claimed in view of the following remarks.

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# 2. Declaration

Per the suggestion in the Office action, a new declaration specifying Applicant's citizenship accompanies this paper.

## 3. Title and Abstract

Paragraph 5 of the Office action sets out an objection to the application's title and abstract. Applicant has amended both the title and abstract to address this issue. Accordingly, this objection can be withdrawn.

#### Antecedent Basis

Paragraph 6 of the Office action alleges that the application lacks an antecedent basis for the terms "identifying" and "MHC component" in claim 383, the terms "whole blood" and "blood cells" in claim 387, and "cholesterol molecule" in claim 390.

With regard to "identifying", the specification is clear that identification of antigen-specific T cells is among the methods for which the novel class of artificial antigen presenting cells described in the specification can be used. For example, the abstract, both before and after amendment, explicitly refers to identification of antigen-specific T cells. The same can be said of Example 1, which describes the identification, via FACS, of certain antigen-specific T cell hybridomas.

The amendment of claim 383 to replace "MHC component" with "MHC molecule" obviates the objection based on the term "component." Also, the term "MHC molecule" is used throughout the specification, for example, in the "MHC Molecules" discussion in the "Background of the Invention" portion of the application and in the "Materials and Methods" section of Example 1.

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As the terms "whole blood" and "blood cells" appeared in claim 166 as originally filed, Applicant has amended the specification accordingly, thereby obviating this basis of objection to the specification. Similarly, Applicant's change of "a cholesterol molecule" simply to "cholesterol" in claim 390 obviates this basis of objection.

Because the specification either provides an antecedent basis for, or the amendment to the claims or specification herein eliminates a basis for objection, Applicant respectfully submits that the specification provides the requisite antecedent basis for the terms used in the pending claims. Accordingly, this objection can also be withdrawn.

#### Substitute Specification

Paragraph 7 of the Office action notes that previous amendments to the specification (dated 29 June and 8 August 2001) have not been entered due to the "excessive number of corrections and replacement paragraphs" that would be required, and suggests that Applicant instead submit a substitute specification under 37 C.F.R. 1.125(a). Applicant appreciates this suggestion, and he asks that this particular issue be held in abeyance until after issuance of a notice of allowable subject matter. As no electronic copy of the specification is currently available to the Applicant or the undersigned (the application having been drafted by previous counsel), Applicant respectfully suggests that editing the specification be deferred until claims have been allowed.

# 6. 35 U.S.C. § 112, Second Paragraph

The pending claims stand rejected under 35 U.S.C. § 112, second paragraph, due to alleged indefiniteness of claim 383 and 389. Applicant respectfully submits that the changes made to each of theses claims by way the amendment above obviate this rejection, and thus he requests that it, too, be withdrawn.

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#### 7. 35 U.S.C. § 112, First Paragraph - Written Description

Claim 388 stands rejected under 35 U.S.C. § 112, first paragraph, as allegedly lacking an adequate written description in the specification with regard to the items recited in the claim's Markush group. Applicant respectfully traverses this rejection; however, to advance prosecution, claim 383 has been amended to pursue preferred embodiments wherein the artificial antigen presenting cell used in the claimed methods presents a peptide derived from the antigen of interest in association with an MHC molecule. As a result of the foregoing change to claim 383, claim 388 has also been amended in a conforming fashion. Applicant respectfully contends that this amendment of claim 388 obviates the basis underlying the instant rejection, in that the claims no longer "encompass an essentially unlimited genus." Office action, page 4, third paragraph. Given this, Applicant submits that this rejection should also be withdrawn.

#### **CONCLUSION**

Applicant respectfully submits that all pending claims are in condition for allowance, and he respectfully requests an early notice to such effect. Should any issues or questions remain, the Examiner is encouraged to telephone the undersigned at 858.350.9690 so that they may be promptly resolved.

Dated: 9 July 2004

Respectfully submitted,

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